

**5.3.1 U.S. Heating and Air-Conditioning System Manufacturer Shipments, by Type (Including Exports)**

<u>Equipment Type</u>	<u>1990</u> <u>(1,000s)</u>	<u>2000</u> <u>(1,000s)</u>	<u>2005</u> <u>(1,000s)</u>	<u>2007</u> <u>(1,000s)</u>	<u>2009</u> <u>(1,000s)</u>	<u>2005 Value of</u> <u>Shipments</u> <u>(\$million) (7)</u>
<b>Air-Conditioners (1)</b>	<b>2,920</b>	<b>5,346</b>	<b>6,472</b>	<b>4,508</b>	<b>3,516</b>	<b>5,837</b>
<b>Heat Pumps</b>	<b>809</b>	<b>1,539</b>	<b>2,336</b>	<b>1,899</b>	<b>1,642</b>	<b>2,226</b>
Air-to-Air Heat Pumps	809	1,339	2,114	1,899	1,642	1,869
Water-Source Heat Pumps (2)	N.A.	200	222	N.A.	N.A.	357
<b>Chillers</b>	<b>N.A.</b>	<b>38</b>	<b>37</b>	<b>N.A.</b>	<b>N.A.</b>	<b>1,093</b>
Reciprocating	N.A.	25	24	30	20	462
Centrifugal/Screw	5	8	6	7	5	566
Absorption (3)	N.A.	5	7	N.A.	N.A.	64
<b>Furnaces</b>	<b>2,369</b>	<b>3,681</b>	<b>3,624</b>	<b>2,866</b>	<b>2,231</b>	<b>2,144</b>
Gas-Fired (4)	1,950	3,104	3,512	2,782	2,175	2,081
Electric	280	455	N.A.	N.A.	N.A.	N.A.
Oil-Fired (5)	138	121	111	84	56	63
<b>Boilers (6)</b>	<b>316</b>	<b>368</b>	<b>370</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>

Note(s): 1) Includes exports and gas air conditioners (gas units <10,000 units/yr) and rooftop equipment. Excludes heat pumps, packaged terminal air conditioner units, and room air conditioners. Approximately 95% of unitary air conditioners shipped are 5.5 tons or less (65,000 Btu/hr). ~70% residential and ~30% commercial applications. 2) Includes ground-source heat pumps, which numbered around 80,600 units shipped in 2005. 3) DOC did not report absorption chiller shipments for 2007 and 2009. 4) Gas-fired furnace value of shipments are based on Census unit shipment data, which is about 873,500 units higher than the industry data shown. 5) Oil-fired furnace value of shipments are based on Census unit shipment data, which is approximately 33,600 units lower than the industry data shown. 6) 61% of shipments were gas-fired and 39% were oil-fired. 96% of shipments are cast iron and 4% are steel. 7) Total 2005 value of shipments for heating, ventilation, and air conditioning (HVAC) and refrigeration was \$24.7 billion, including industrial and excluding boilers and electric furnaces.

Source(s): ARI, Statistical Profile, Oct. 7, 2004, Table 17, p. 24, Table 18, p. 25, and Table 22, p. 30 for air conditioner, air-to-air heat pump, and 1990 centrifugal/screw chiller shipments; AHRI, ARI Koldfax, Feb. 2005, p. 1 for 2004 air conditioner shipments; GAMA, GAMA Statistical Highlights: Ten Year Summary, 1987-1996; GAMA, GAMA Statistical Highlights: Ten Year Summary, 1994-2000 for furnace and boiler shipments; GAMA, GAMA News Release, Jan. 2005 for 2004 boiler shipments; GAMA, Statistical Highlights, Mar. 2005, p. 4 for 2004 furnace shipments; Appliance Manufacturer, Feb. 1998 for electric furnace; DOC, Current Industrial Reports: Refrigeration, Air Conditioning and Warm Air Heating Equipment, MA333M(06)-1, July 2007, Table 2, for water-source heat pumps, chillers, and value of shipments; Appliance Magazine Appliance Statistical Review, 54th Annual Report, May 2007, p. S1 - S4 for 2005 boiler data; AHRI, "Historical Statistical Data: Central Air Conditioners and Air-Source Heat Pumps," 2010, accessed March 15, 2011 at <<http://www.ahrinet.org/historical+data.aspx>> for 2007 and 2009 A/C and heat pump shipments; AHRI, "Historical Statistical Data: Furnaces," 2010, accessed March 15, 2011 at <<http://www.ahrinet.org/historical+data.aspx>> for 2007 and 2009 furnace shipments; DOC, Current Industrial Reports, MA333M - Refrigeration, Air Conditioning, and Warm Air Heating Equipment, 2008 Annual and 2009 Annual reports for 2007 and 2009 shipments of chillers; and GAMA News Release, Jan. 2007 for note 6.